

Make Money From Rice Husk Ash. Converting Waste Agricultural Biomass into a Resource. Precipitated Silica from Rice Husk Ash Project

Description:

Rice husk, an agro waste material, contains about 20% ash which can be retrieved as amorphous, chemically reactive silica. This silica finds wide applications as filler, catalyst support, adsorbent and a source for synthesizing high performance silicon and its compounds. Various metal ions and unburned carbon influence the purity and color of the ash. Controlled burning of the husk after removing these ions can produce white silica of high purity. India produces around 25 million tons of rice husks (widely available waste). 78% of weight as rice, broken rice and bran, rest 22% of weight of paddy as husk. 75% of organic volatile matter and 25% of weight is converted as Rice Husk Ash (RHA) during firing process. Husk contains 17%-20% silica in complex form and RHA contains 85%-95% amorphous silica. RHA is a great environment threat causing damage to the land and the surrounding area in which it is dumped.

Precipitated silica can be prepared by treating rice husk with Sodium sulphate to produce Sodium silicate, which is then dissolved in water and reacted with Sulphuric acid to get Precipitated silica. Rice husk is treated with Sodium sulphate to produce Sodium silicate. Sodium silicate obtained is diluted with water. The diluted Sodium silicate solution is brought to a certain temperature and Sulphuric acid of appropriate dilution is added in controlled condition. The resultant product is Precipitated silica, which is washed in a washing tank. The washed Precipitated silica is filtered, dried and pulverised to required mesh size.

For more details download PDF file.

Keywords: Precipitated Silica Manufacturing Process, Precipitated Silica Process, Process of Precipitated Silicate Plant, Manufacturing of Precipitated Silica from Rice Husk, Precipitated Silica from Rice Husk, Precipitated Silica Manufacturing in India, Process of Precipitated Silica from Rice Husk, Extraction of Ultrapure Silicon from Rice Husk Ash, Rice Husk Ash, Make silica from rice husk in India, process plant of Rice Husk, Large scale silicon production from Rice Husk, Production of Precipitated Si

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